

What's new in Unpacking



- ❖ +00.83.00 includes the new unpacking schema, introduced in +00.81.00, where the unpacking infrastructure is separated from the detector specific unpacking routines. Individual subdetector groups are now responsible for making sure the (un)packing code works for their modules.
- ❖ Modules are created by a factory according to the type and mode of the requested module. The module knows how to unpack itself.
- ❖ Initialization of the run configuration is handled by the framework, so it can only be initialized once.



Organization



UNPACKING INFRASTRUCTURE	
unpack_base	Mike Fortner Charles Leggett
unpack_mrc	
unpack_vrb	
run_config_mgr	Charles Leggett
l3run_config	
DETECTOR SPECIFIC	
unpack_svx_fe	Robert Illingworth, Kin Yip Ela Barberis (SC)
unpack_muo_fe	Paul Balm, Mike Fortner Pushpalatha Bhat (SC)
unpack_cal_fe	Charles Leggett Volker Buescher (SC)
unpack_muo_l1	Freedy Nang Mike Fortner (SC)
unpack_ft_l1	Kin Yip Levan Babukhadia





Organization



UNPACKED AND RAW DATA GENERATION

unpack_reco
unpack_evt

Mike Fortner
Charles Leggett



Status of Unpacking in t00.83.00



◆ Packages in this release:

- unpack_base v00-01-05
- unpack_mrc v00-01-01
- unpack_vrb v00-01-01
- run_config_mgr v00-01-06
- l3run_config v00-00-03
- unpack_cal_fe v00-01-05
- unpack_muo_fe v00-01-01
- unpack_svx_fe v00-02-03
- unpack_ft_ll v00-01-01
- unpack_muo_ll v00-01-00
- unpack_reco v00-02-03
- unpack_evt v00-04-02



Defined Modules



Description	Type	Factory Key	Package
Calorimeter Readout	ADC	(ADC,data)	unpack_cal_fe
Cal Crate Controller	CAL	(CAL,data)	unpack_cal_fe
Muon PDT Readout	PDT	(MRC,pdt)	unpack_muo_fe
Muon MDT Readout	MDT	(MRC,mdt)	unpack_muo_fe
Muon Scintillator Readout	MSC	(MRC,msc)	unpack_muo_fe
Muon Crate Controller	MUO	(MUO,data)	unpack_mrc
Muon Centroid	MCN	(MRC,mcn)	
Muon Trigger	MTC	(MRC,mtc)	
Silicon SVX Readout	SMT	(VRB,smt)	unpack_svx_fe
Fiber Tracker	AFE	(VRB,afe)	unpack_svx_fe
Central Tracking Trigger	CTT	(VRB,ctt)	unpack_ft_ll
Central Tracking Cluster Trig	CTC	(VRB,ctc)	unpack_ft_ll
VRBC Crate Controller	VRC	(VRC,data)	unpack_vrb



What's Working



❖ Unpacking that's been demonstrated to work:

- Calorimeter
 - ★ CalDataChunk -> UnpDataChunk via calunpdata
 - ★ CalDataChunk->RawDataChunk->L3 unpacking via l3tCallUnpTool
 - Problem: won't work on NT as uses geometry.
 - in the process of separating RawDataChunk generation from the L3 tool
- Muon
 - ★ L3TMuoUnpack
 - ★ L3TMuoUnpackTimes (unpacking tool that doesn't use geometry)
 - ★ L3TMuoLocal (local tracking code)
- SMT
 - ★ l3fsmtunptool: L3 unpacking
 - ★ smt_examine
 - ★ both offline and L3 unpackers on SMT test stand data!
- CFT (un)packing tested offline



Raw Data Chunks



- ❖ A beta version of the PackReco code is in CVS as part of the unpack_reco package.
- ❖ SMT - using SmtData2RawUnp from smt raw package to generate UDC
- ❖ Muon system - using MuoMCToUnpReco from muo_unpdata to generate UDC (PDT and MDT channels).

